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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,986	01/25/2002	Byung Taek Kim	2336-096	7638

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EXAMINER

HAM, SEUNGSOOK

ART UNIT PAPER NUMBER

2817

DATE MAILED: 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,986

Applicant(s)

KIM ET AL.

Examiner

Seungsook Ham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10-20 is/are rejected.
- 7) ☒ Claim(s) 4,5,7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 21 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: page 14, line 3, "30a, 30b, 30c and 30d" should be corrected to -20a, 20b, 20c and 20d--.

Appropriate correction is required.

Claim Objections

Claims 1, 3, and 5 are objected to because of the following informalities:

claim 1, line 7, claim 3, lines 3 and 4, claim 5, line 3, "the inductor portion" should be corrected to -the inductor portions--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Randall (US '778).

Randall (fig. 7) discloses a device comprising at least two inductive elements 21, 22 arranged side by side, each of said inductive elements comprising a first coil and a second coil, 8 and 7, 10 and 9 electrically connected with each other. It should be noted that it is inherent that a first mutual inductance occurs between the first coils 8 and 10, and a second mutual inductance occurs between the second coils 7 and 9, to

operate as a transformer. Moreover, the first and second mutual inductances between the second coils have opposite signs since the two coils 7 and 8, 9 and 10 are reversely connected to each other (col. 3, lines 8-20).

The recitation, "noise reduction filter array", has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

The subject matter of claim 16 is inherent from the device of Randall since Randall teaches that the first and second coils produce zero current (col. 3, lines 8-20).

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 11-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lastrucci (US '767).

Lastrucci (fig. 6) discloses a noise reduction filter comprising: two inductance portions each comprising first and second coils L_m and L_x , L'_m and L'_x and being put on top of the other; a ground portion (the ground potential connected to C, C') arranged under the inductance portions; a capacitance portion C_x , C'_x arranged over the ground portion; wherein the first coils are wound in the same direction and the second coils

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are wound in opposite directions (see the dots in the mutual inductance between the first coils L_m , L'_m and second coils L_x , L'_x).

Regarding claim 3, Lastrucci (fig. 6) also shows the second ground portion over the inductance portions (the ground potential connected to the switch generator 3, 3').

Regarding claims 2 and 16, it is inherent that the inductance value of first and second coils are the same, and the first and second mutual inductances are entirely offset to each other to create a cancellation network (see col. 5, lines 7-34).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randall (US '778) or Lastrucci (US '767).

Forming the device/filter in a single chip is considered as an obvious modification since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *In re Larson* 144 USPQ 347 (CCPA 1965).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lastrucci (US '767).

Forming the ground portion as a single layer is considered as an obvious modification since such modification does not alter the operation of the filter device.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randall (US '778) in view of Phillips, Jr. (US '400).

Randall does not show capacitive elements. However, providing capacitive elements to form a filter is well known in the art. Phillips, Jr. (fig. 1) discloses a filter comprising inductance elements and capacitive elements.

Therefore, it would have been obvious to one of ordinary skill in the art to provide capacitive elements in the device of Randall to use as a filter device since such design technique is well known in the art as shown by Phillips, Jr.

Allowable Subject Matter

Claims 4, 5, 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 9 is allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (703) 308-4090. The examiner can normally be reached on Monday - Thursday from 8:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on (703)308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Seungsook Ham
Primary Examiner
Art Unit 2817

sh
May 19, 2003